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ABSTRACT

A cooperative statewide effort to evaluate individual Arts-in-Education projects and their cumulative impact upon Pennsylvania education is described. Eight Title IV Arts-in-Education projects in the Commonwealth of Pennsylvania are participating in the three year project. A coordinating center maintains communication, organizes data, and ensures procedural control. The integrity of individual projects is maintained and analyses across projects made possible. Results indicate that funding and administrative problems associated with single large-scale projects can be avoided and evaluation efforts can be standardized. Planning and the use of common purposes and common results can encourage comparability of findings from different projects. (Author)

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COOPERATIVE PARALLEL EVALUATION FOR ARTS IN EDUCATION PROJECTS IN THE COMMONWEALTH OF PENNSYLVANIA

PHASE I: PLANNING AND DESIGN

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A. OBJECTIVES

The process of evaluation was condemned by Guba (1973) as a failure. Several symptoms were described by which this failure was recognized, including avoidance, anxiety, immobilization, misadvide, and no significant differences. But perhaps the most important indication of failure was vague guidelines or no guidelines at all for educational evaluation.

Fortunately, this situation has improved somewhat over the past few years as a result of efforts by Steele (1973), Stufflebeam (1973), Grobman (1970), Roberson (1971), Klein, et.al. (1971), and Stake (1975), among others. Evaluation is now generally considered to include the processes of gathering and analyzing information for the purpose of making decisions about programs and procedures. These processes are organized according to a paradigm which usually includes several components, such as needs assessment, program planning, evaluation design, program monitoring, progress evaluation, and outcome evaluation.

A review of ESEA Title III-supported arts in education projects in Pennsylvania over the past five years, however, provides convincing evidence that the effectiveness of each has been lessened by the application of diverse and often irrelevant criteria for evaluation.

As public funds for education have become more limited, austere measures have been and are being implemented to account for and to justify these expenditures. Accountability and justification are determining several of the decisions which must be made concerning educational programs and projects. Evaluation processes must be executed that will allow these decisions to be made in the best interests of today's children.

Several arts in education projects have been funded through ESEA Title IV over the past two years in the Commonwealth of Pennsylvania which collectively have the potential for significant impact upon Pennsylvania education. Current evaluation practices recommend initiating a statewide effort to identify and to use appropriate methods for monitoring and assessing the effectiveness of individual programs as well as their collective impact. The purpose of this paper is to describe a cooperative effort to analyze and to translate the program objectives for several arts in education projects in such a way as to provide a base for independent yet concurrent and interrelated evaluation activities.

B. PERSPECTIVE

Bond and Dykstra (1967) presented a report of the Coordinating Center of the Cooperative Research Program

in First Grade Reading Instruction. Common experimental guidelines were followed in 27 individual studies comprising the Cooperative Research Program. Three basic questions were posed which the Cooperative Research Program hoped to answer: 1) What characteristics were related to first grade reading and spelling achievement? 2) Which program produced superior reading and spelling achievement at the end of the first grade? 3) Was any program more or less effective for students at different levels of reading readiness? Data were compiled from each of the individual studies relevant to these three questions concerning community, school, and student characteristics and achievement, teaching strategies and achievement, and program effectiveness and reading readiness.

Each of the 27 studies was a complete study in itself. The program's unique characteristic was that each project director, in addition to carrying out his or her own analysis, made data available to a Coordinating Center, thus enabling analysis across individual projects. Therefore, common procedures for data collection and analysis as well as common experimental procedures were established during initial program planning. The Coordinating Center was charged to maintain communications and to collect, organize, analyze, and interpret the data common to each child in all 27 individual projects.

In analyzing the Cooperative Research Program, Grobman (1970) noted that it did not work perfectly. There were differences in procedures, materials, treatments, samples, and rigorousness of implementation between the 27 projects than what had been originally planned. However, the comprehensiveness of the data provided and the appropriateness of comparison groups throughout the Cooperative Research Program were indeed impressive.

This initial landmark study described a relatively new type of research effort which Grobman suggested would be suitable for science education research. While recognizing the limitations of fewer, centralized, large-scale research projects as well as those of many smaller isolated projects, a cooperative, parallel, multi-investigator approach could take advantage of those benefits possessed by both while minimizing their limitations.

This support for a cooperative parallel research effort applies equally to a cooperative parallel evaluation effort, and could be considered even more critical, for the results of evaluation can determine future allocations for research and related activities. Although similarities exist between research and evaluation, their processes are not conterminous. However, the needs for cooperative parallel evaluation

activities could be considered as having the same bounds as those identified for cooperative parallel research.

Just what is meant by the concept of cooperative parallel evaluation? Sharing thoughts and techniques for the common benefit of all is the essence of cooperation; parallelism refers to similar activities being conducted at the same time at two or more project sites; evaluation is a systematic procedure for collecting and analyzing information for the purpose of decision-making. Cooperative parallel evaluation, then, is a systematic procedure carried out at different project sites to gather information appropriate for answering questions and making decisions about areas of mutual concern.

The potential for several benefits exists in a cooperative parallel evaluation project. One is the involvement of competent personnel from different regions and projects. Others include maintaining close contact with classrooms, teachers, and students across several school districts, bypassing the funding and administrative problems associated with single, large-scale projects, and standardizing evaluation efforts through planning and using common purposes and common results to encourage comparability of findings from different projects.

C. METHODS

The convergent methods of the more generally accepted

prescriptive evaluation models, when applied to the divergent processes of the arts, may generate an incongruous situation. Stake and Hoke (1976) recognized the need for different methods for evaluating the arts that would be more compatible with divergent arts processes. They described responsive evaluation as having a qualification data base which depended upon their inability to tear down their own conclusions, rather than depending solely upon a quantitative data base for determining program success or failure.

Both qualitative and quantitative data bases were recognized as components of an evaluation system for the initial organization of the cooperative parallel evaluation of the arts in education projects. While some behaviors can be translated into numerical data, there are others involving emotions, attitudes, and aesthetics that cannot be as easily transformed. This qualitative component of the evaluation project was assigned to each project director and became one of the responsibilities of the individual evaluation studie . It was not considered further in the organization and implementation of the cooperative parallel evaluation.

The basic model employed for the cooperative parallel evaluation (CPE) was that developed at the UCLA Center for the Study of Evaluation (Klein, et.al., 1971). This model

consists of five phases--needs assessment, program planning, implementation evaluation, progress evaluation, and outcome evaluation. Figure 1 illustrates this model as adapted for the CPE project. Following the needs assessment phase, which was determined largely by a state department of education analysis of the proposed evaluation activities of several arts in education projects approved for funding through ESEA Title IV, Part C, further analyses of the projects by a planning group identified common purposes and objectives. The planning group included a state department specialist, a consultant from the Central Susquehanna Intermediate Unit, and one of the project directors. In addition, a planning conference for project directors was identified for the completion of the program planning phase.

INSERT FIGURE 1 ABOUT HERE

The dominant component of the model synthesizes the conceptual schema of the cooperative and parallel evaluation activities. The common activities are coordinated in eight locations which represent the eight separately funded arts in education projects. This coordination is accomplished by a coordinating center which serves to catalyze the implementation of the CPE evaluation activities.

The implementation and progress evaluation phases and the outcome evaluation phase correspond to the UCLA model. The final component of the CPE model is the identification of recommendations and suggested solutions to commonly perceived problems in arts in education activities.

The Pennsylvania Title IV-C project approval process for FY 1976 required project starting dates to be scheduled during the late winter and early spring of 1976, well into the 1975-76 school year. Such a late start prevented meaningful implementation in the schools but did allow and encourage further planning. During this time, the eight independently operating project directors voluntarily agreed to form an informal consortium for evaluation. The initial planning conference of project directors was convened in late February, 1976, to share plans and activities of the individual projects, to promote the need for cooperation and communication between projects, and to introduce the concept of cooperative parallel evaluation and define the CPE model.

A second meeting of directors was scheduled for late March, 1976, to satisfy three purposes. First, the concept of cooperative parallel evaluation was reviewed as an effort to organize a sharing, advising, and assisting assessment project for the common benefit of the eight

arts in education projects. Second, specific purposes and procedures for the CPE project were designed. Third, a personal commitment from each project director was obtained to implement the CPE project.

While the first meeting emphasized the affective dimension of group dynamics, consensus generation, and cooperation as an attempt to build group morale, loyalty, and identity with the CPE project, the second meeting concentrated on evaluation design and specification of independent and dependent variables for the overall project. For the remaining two months of the school year, the project directors were charged with revising the evaluation activities of their individual projects to ensure systematic and valid assessments that would be compatible with the CPE model.

At the State Education Department level, arrangements were made by the administrators of the Title IV-C program to coordinate the evaluation activities of independent state evaluators to allow them to meet and discuss the common successes, failures, problems, and concerns of the individual projects. Although not part of the CPE project, this activity was compatible with the purposes of the project.

The Coordinating Center for the CPE project was established at the Central Susquehanna Intermediate Unit

and was charged to maintain communications and facilitate cooperation between the various projects and to collect and analyze common data collected from the individual projects. It also served as the focus for evaluation consultation and CPE project design. During the summer months of 1976, the Coordinating Center was responsible for the definition of those independent and dependent variables common to all projects and identified during the second meeting of project directors. It prepared operational definitions of these variables and instrumentation to collect data from each project as discussed at the planning meetings.

A packet of information including instructions, operational definitions, evaluation forms, and tests was sent to each project director in early fall at the beginning of the 1976-77 school year. Each project site was also visited by a member of the CPE planning group to review the CPE project, answer questions about the information packet, and seek clarification of the evaluation activities of each project.

As much as possible, each project director was asked to select a comparison class (or classes) or a comparison school building (or buildings). The students and teachers identified as a comparison group in the individual projects were matched by the project director as closely

as possible to students and teachers participating in the local project.

Pretests were administered by the end of October, 1976, and posttests were planned for May, 1977. Each project director planned 125 instructional days between pre and posttesting for the local project.

D. DATA SOURCE

Three basic questions of concern to the CPE project were:

1) To what extent are various student, teacher, class, school, and community characteristics related to student progress in the arts?

2) Which of the many approaches to arts-in-education produces more effective progress?

3) Is any project uniquely effective or ineffective for students and/or teachers?

Analysis of the eight Pennsylvania arts-in-education projects identified "teacher inservice" and "artists in classrooms" as the independent variables for this cooperative evaluation. Also identified have been "heightened self-awareness" and "alternative teaching models" as dependent variables. Further interest was shown in a survey to suggest the degree of relationship between arts-in-education activities and achievement in

basic skills.

Thus, the CPE project was designed to collect data from two dependent variables resulting from the manipulation of two separate independent variables. The independent variables were defined as follows:

a) Teacher Inservice.--A planned series of sessions organized around various art areas and designed to improve the competencies of classroom teachers.

b) Artists in Classrooms.--A series of sessions planned by trained artists and prepared teachers to utilize arts processes to expand student learning and teacher instructional options.

Operational definitions and descriptions of these variables as implemented in each local project were those prescribed by the original project proposals.

Operational definitions for the two dependent variables were prepared with assistance from the Instructional Objectives Exchange (1972). These definitions follow:

a) Self Concept.--

1. When given the opportunity to display classwork, students will give evidence of positive self concepts by voluntarily posting their work.

2. Given a contrived situation in which the teacher describes a group of fictitiously esteemed students, class members will demonstrate positive self concepts by voluntarily identifying themselves as students who belong to this group.

b) Instructional Strategy.--

1. Teachers participating in an Arts-in-Education project (inservice and/or artists-in-classrooms) will perceive more positive teacher-student interaction and growth in teacher-student relationships through professional analysis and self-evaluation of their own teaching behaviors. This analysis and evaluation will describe a significant increase in both the quantity and quality of interactions and relationships over those described by teachers not participating.

2. Teachers participating in an Arts-in-Education project (inservice and/or artists-in-classrooms) will perceive an increase in the use of a greater variety of instructional strategies and a decrease in the number of student instructional problems and difficulties resulting from individualization of

instructional activities. These perceptions will be of a greater magnitude than those of non-participating teachers.

3. Teachers participating in an Arts-in-Education project (inservice and/or artists-in-classrooms) will demonstrate the involvement of other adults, outings into the community, and flexible scheduling of activities with greater frequency than those teachers not participating.

4. Teachers participating in an Arts-in-Education project (inservice and/or artists-in-classrooms) will provide and maintain a more attractive and stimulating classroom environment than non-participating teachers. This will be determined by the number and variety of visual and manipulative materials present, the physical arrangement of classroom furnishings, and the frequency of changes in materials and furnishings.

The data source for each of these variables consisted of a battery of definition forms, tests, and evaluation forms which were designed to obtain information from local project staff, teachers, and students. The total sample for the CPE project included all teachers

and students participating in each of the eight local projects. This sample included participants from rural, suburban, and urban areas, large and small school districts, and all grade levels. Data collection was planned according to a four-dimensional matrix for analysis by project, setting, size of school, and grade level.

E. RESULTS AND CONCLUSIONS

The timetable for the CPE project was such that the first year was planned to develop and debug the CPE system. Implementation and progress evaluation were planned as the emphasis of the second year, while outcome evaluation was planned for the third.

Now at the beginning of the second year of the project, little concrete data has yet been collected from students and teachers. This data is now being collected in the separate local sites. Observations, however, have been obtained concerning the planning, design, and initial implementation of the cooperative parallel evaluation model, and several tentative conclusions can be made.

1. All eight Title IV-C arts in education projects in the state participated in the initial phases of the project. The procedures for the CPE project were accepted by all participants as

real, ongoing, and sensible.

2. The CPE model was implemented in a cost efficient manner. Reallocation of evaluation monies at the local level were made in response to requests for modification of local activities to make the separate evaluation plans more compatible with the CPE project. A modest subsistence grant of $1,250.00 from one of the projects was used to establish the Coordinating Center and form a loose confederation of arts in education projects across the state. State Department of Education personnel were able to more effectively manage their time since specialists could monitor several projects in the same amount of time previously scheduled for one.

3. Five project directors designed and implemented revised local evaluation procedures as a result of competencies gained or activities suggested at the initial director planning meetings.

4. The independent state evaluators were convened in a joint session to discuss their observations of the local projects and the CPE project. One of their recommendations was to continue the CPE project with greater support from the state's Title IV Office.

5. One of the projects withdrew from the confederation as it re-emphasized a community education component and de-emphasized its arts in education component. This change was unrelated to the CPE project, however.

6. A teacher strike in one district and reluctance of staff to use some of the developed instruments in another delayed implementation of the CPE model by two local projects. All local projects have faced some interruptions since renewal procedures for local project grants had been changed somewhat forcing the project directors to spend some extra time with the grants processes.

7. While implementation costs were modest, maintenance costs for the CPE project have thus far exceeded original expectations. Maintenance costs include expenses required for regular communications between all projects, staff costs for the Coordinating Center, planning group, and state monitoring, and workshops for project directors.

F. IMPORTANCE

Evaluation has generally not been well understood

by school people. Guba (1973) noted that the lack of an adequate definition, lack of theory, lack of criteria, and lack of trained personnel have plagued evaluation activities. One of the important benefits of this project has been the inservice training provided to local school people. Since evaluation is a requirement of each local project, the directors have been able to revise their local evaluation activities to account for a common definition and model for evaluation. Suggested plans and procedures for systematic evaluation were provided by personnel trained in evaluation processes.

There are several other potential and actual advantages to cooperative parallel evaluation procedures. Evaluation efforts can be standardized across several projects, thus providing a larger sample from which generalizations can be made. Competent personnel from different locations can be involved--the interchange of ideas by evaluation specialists working with local projects can help strengthen the evaluation components of other local projects as well as the CPE project.

In addition, direct comparisons can be made of different treatments through the CPE project that a local project could not accomplish for lack of participants and staff. Different methods of teacher inservice, for example, or inservice for teachers in

different academic areas could be investigated through a CPE project. A local project would probably not have enough teachers for adequate samples of both control and treatment groups, nor would it have the instructional resources to plan and present different inservice courses in different ways, whereas these could be accomplished through a coordinated sharing of resources through cooperative parallel evaluation.

Another advantage is the maintenance of the integrity of local projects and encouragement of the completion of unique studies. While the CPE study has identified a few general concerns across all local projects, each local project still remains an independent study to implement the activities originally prescribed in its proposal to satisfy locally determined needs. The CPE project has not arrogated or altered any activities in local projects, with the exception of evaluation activities which, as previously mentioned, were revised as a result of the evaluation workshops for project directors.

According to Grobman (1970), single, large-scale projects prevent close contact between teachers and investigators because of an extended geographic area covered by the study. The director of such a project would find it difficult to manage the details of implementation and would have considerable responsibility

for administrative tasks. In addition, as grant money becomes more scarce, and more agencies are seeking funding, large-scale projects are becoming more difficult to finance, especially in a single geographic area. The cooperative parallel study based upon a confederation of smaller independent projects avoids these problems. A local project director can maintain close contact with implementation and not be overburdened with administrative chores. Also, grant awards to several different regions is more politically feasible.

Limitations of such an organization must be recognized, too. The cooperative parallel research project reported by Bond and Dykstra (1967) was originally designed as such; the cooperative parallel evaluation project reported herein was not. The CPE project was planned and initiated after the approval and negotiation phases of Title IV-C funding had been completed. None of the local project directors had an awareness of the CPE project, much less included plans in their proposals for such activity during local planning. Nevertheless, it is to the credit of the individual project directors that their flexibility and adaptability for revising their local projects permitted the CPE concept to progress.

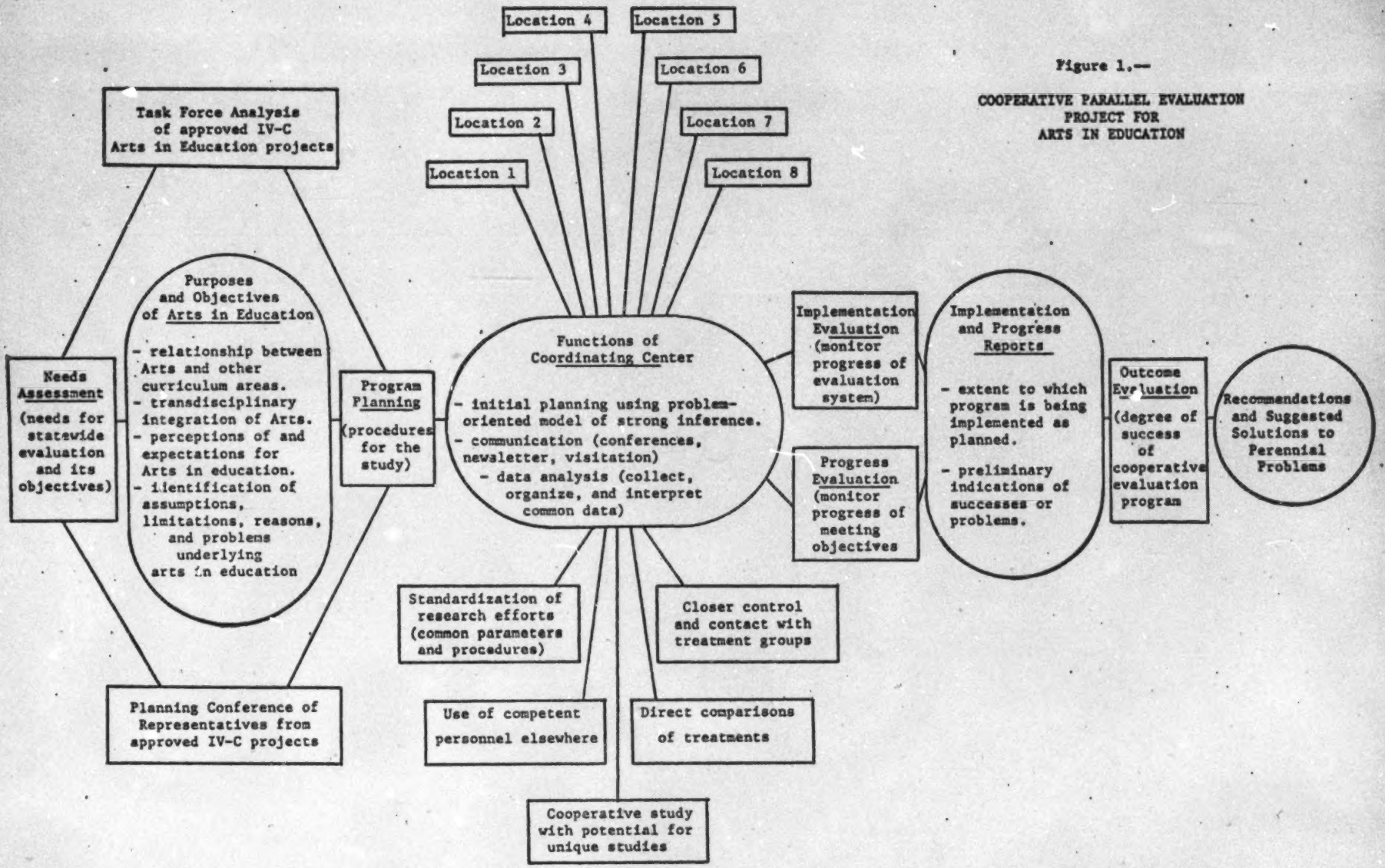
Other limitations of this study are related to this lack of initial planning; to some degree these limitations

include two-way communications, financial commitment for maintenance of the model, and joint planning of the instrumentation to be used.

The first phase of the project, that of planning and design, has been completed. The advantages of the CPE project appear to overcome its limitations. It remains to be seen, however, whether the project will be successful in addressing the three questions listed in Section D. The data collection and analysis resulting from Phase II (Implementation and Progress Evaluation) will allow further judgement of the advantages and significance of cooperative parallel evaluation.

Figure 1.—

COOPERATIVE PARALLEL EVALUATION PROJECT FOR ARTS IN EDUCATION


Location 4
Location 5
Location 3
Location 6
Location 2
Location 7
Location 1
Location 8
Task Force Analysis of approved IV-C Arts in Education projects
Needs Assessment (needs for statewide evaluation and its objectives)
Purposes and Objectives of Arts in Education
- relationship between Arts and other curriculum areas.
- transdisciplinary integration of Arts.
- perceptions of and expectations for Arts in education.
- identification of assumptions, limitations, reasons, and problems underlying arts in education
Program Planning (procedures for the study)
Functions of Coordinating Center
- initial planning using problem-oriented model of strong inference.
- communication (conferences, newsletter, visitation)
- data analysis (collect, organize, and interpret common data)
Implementation Evaluation (monitor progress of evaluation system)
Progress Evaluation (monitor progress of meeting objectives
Implementation and Progress Reports
- extent to which program is being implemented as planned.
- preliminary indications of successes or problems.
Outcome Evaluation (degree of success of cooperative evaluation program
Recommendations and Suggested Solutions to Perennial Problems
Planning Conference of Representatives from approved IV-C projects
Standardization of research efforts (common parameters and procedures)
Closer control and contact with treatment groups
Use of competent personnel elsewhere
Direct comparisons of treatments
Cooperative study with potential for unique studies

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